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The dotted line communication paths 307 illustrate connections to additional gateway switches with mailboxes 14 within electronic mail systems 1-N.

The function of the interface switches 304 is twofold. In the first place, the interface switches 304 function as a security check to determine that information transmissions originating from a gateway switch with mailbox 14 represent transmissions which should be coupled to a hub switch 116 of the RF information transmission network 302. The security check is performed by the interface switch 304 comparing the identification number of the RF receiver 119 which has been added by either an originating processor A-N or a gateway switch with mailboxes 14 with permissible identification numbers or the interface switch performing the addition of the identification number. The interface switch 304 also removes information added by the electronic mail system 1-N to the information from the originating processor A-N from the stored information received from one of the gateway switches 14 and adds information used by the RF information transmission network 302 during transmission of the information originated at the originating processor to a RF receiver 119 in the RF information transmission network 302 which receives the information and transfers it to the destination processor A-N. Additionally, the interface switch 304 encodes data, which is required to format the display of the CRT of the destination processor for the electronic mail system to which the destination processor is connected, in the form of a character or characters which are decoded by either the RF receiver 119 or the destination processor A-N and added in decoded form back to the information which is processed by the destination processor with a format of the electronic mail system to which the destination processor A-N is connected.

The interface switches 304 function to store information which has been stored by at least one gateway switch 114 that is received from a plurality of originating processors, assemble the information from a plurality of originating processors into a packet preferably having the format of that described above with reference to the prior art in FIG. 6 and transmit the packet to the hub switch 116 within the RF information transmission network 302. While the invention is not limited to the transmission of the packets from the interface switch 304 to the hub switch 116 of the RF information transmission system 302, the hub switch is the preferable node in the RF information transmission network to which communications from the gateway switches 14 should be transmitted as a consequence of it having jurisdiction over both lata switches 114 and the local switches 112 in the RF information transmission network which results in lesser network overhead.

The hub switch 116 receives the packet from the receiving interface switch 304 and disassembles the packet into information from the plurality of originating processors either within a single electronic mail system such as system 1 or from a plurality of electronic mail systems, such as systems 1-N, or from outside of any electronic mail system from at least one additional processor 312 which is connected directly to interface switch 304 to originate information to be transmitted to a destination processor A-N in an electronic mail system as described below. The RF information transmission network 302 transmits the disassembled information from the hub switch 116 including the identification number of the RF receiver 119 transferring information to the destination processor A-N to a local

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switch 112 storing the file 154 identified by the identification number and any destination 178 of the RF receiver in the RF information transmission network to which the information and identification number is to be transmitted by the RF information transmission network and adds any destination of the RF receiver to the information in accordance with the prior art system described above with reference to FIGS. 2-6. The RF information transmission network in response to any added destination transmits the information and identification number to the destination in accordance with the prior art system described above with reference to FIGS. 2-6 for RF broadcast to the RF receiver 119 for transfer to the destination processor A-N.

The information is transmitted to a receiving interface switch 304 from one or more gateway switches 14 by one or more electronic mail systems 1-N in response to an address of the receiving interface switch which has been added to the information originated by the originating processor by either the originating processor or gateway switch. The information is transmitted from the receiving interface switch 304 to the RF information transmission network with an address of the destination processor, such as a name of a user of the destination processor A-N, to receive the information which has been added by either the originating processor A-N, a gateway switch 14 or the receiving interface switch 304.

Various options exist for the adding of the address of the receiving interface switch and the address of the destination processor. Preferably, the address of the receiving interface switch is a code word, such as "TF-MOBOX", which is recognized throughout the electronic mail system when appended to information as directing the information to be transmitted to the interface switch 304. The address of the destination processor is preferably the identification number of the RF receiver 119 within the RF information transmission network 302. The address of the receiving interface switch may be added to the information from the originating processor, by a gateway switch 14 or by the originating processor A-N. The address of the receiving interface switch 304 may be added to the information by matching an identification of the destination processor A-N which may be the name of the individual utilizing the processor or some other information and adds an address of an interface switch such as the aforementioned "TF-MOBOX" stored with the matched identification of the destination processor to the information as the address of the receiving interface switch. Alternatively, the originating processor may be used to add the address of the receiving interface switch 14 by an inputting of the address of the receiving interface switch (TF-MOBOX) along with an identification of the destination processor A-N (name of recipient using the processor). The originating processor A-N may also add the address of the receiving interface switch 304 by matching an identification of the destination processor (name of the user of the processor) with a stored identification of a destination processor and adding an address of the interface switch (TF-MOBOX) stored with the matched identification of the destination processor to the information as the address of the receiving interface switch. The identification number may be added to the information from the originating processor or, alternatively, may be added by the originating processor by matching an identification of the destination processor (the name of the user of the

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processor) with a stored identification of a destination processor (the authorized user of the destination processor) and adding an identification number stored with the matched identification of the destination processor to the information as the identification number of the RF receiver 119. Alternatively, the aforementioned matching process may be performed by either the gateway switch 14 or the interface switch 304.

The at least one additional processor 312 originates information from outside of any electronic mail system. The processors 312 provide an address of at least one destination processor in an electronic mail system, such as the name of the user, to receive information transmitted by the RF information transmission system 302 or an identification number of the RF receiver 119 receiving information and transferring the information to the destination processor. The interface switch 304 which receives the information from each processor 312 adds information used by the RF information transmission network 302 during transmission of the information to the RF receiver 119 receiving the information in the same manner as described above with respect to the interface switch 304.

The advantage of connecting the processors 312 directly to the interface switch 304 is that the processors 312 are only required to have a telephone modem and support programming to format information for RF transmission to a destination processor A-N within any one of one or more electronic mail systems 1-N. The processors 312 are not required to have the necessary electronic mail system software present in originating processors A-N or interconnections with an electronic mail system. As a result of the connection to the interface switch 304, information originating from the additional processors 312 may be transmitted by RF transmission to a destination processor A-N within any one or a plurality of electronic mail systems with the user of the processor 312 or the processor 312 or the interface switch 304 only having to supply an identification number of the receiver 119 to input information into the RF information transmission system 302 for RF transmission to a destination processor.

The difference between originating information by one of the additional processors 312 outside of any electronic mail system and originating information by one of the processors within one of the electronic mail systems is that the direct connection of the additional processor to the interface switch 304 eliminates the requirement for the adding of an address of the interface switch 304 which is required by the electronic mail systems to forward the information to the interface switch where necessary formatting of the information to be compatible with the RF information transmission system is performed. The interface switch 304 packetizes information originating from the additional processors 312 in the same manner as described above with respect to information originating from within an electronic mail system. Information from within an electronic mail system and originating from additional processors 312 outside of the electronic mail system may be formatted into the same packets which are forwarded to the hub switch 116. Additionally, an interface switch 304 may be connected only to the additional processors 312 to provide an interface only for processors outside of any electronic mail system to destination processors A-N within one or more electronic mail systems 1-N. The only information which is necessary to be inputted by the additional processors 312 is the address of the

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destination processor (user of the processor). The addition of the identification number of the receiver 119 may be added by matching of an identification of the destination processor with stored destination processors within the additional processor 312 or the interface switch 304 with an identification number of the receiver 119 stored with an identification of a destination processor A-N used as an identification of the destination processor upon a match having been made.

FIG. 11 summarizes electronic mail message entry methods for messages (information) originating from originating processors within an electronic mail system. The first entry method adds the address of the interface switch 304 and the destination processor preferably in the form of a user's name; the gateway switch 14 takes no action; and the interface switch 304 adds the identification number of the RF receiver 119. The second entry method adds the address of the interface switch 304 and the identification number of the receiver 119; the gateway switch 14 takes no action; and the interface switch 304 performs only the function of verifying that the identification number which was added by the originating processor is a valid identification number within the RF information transmission network 302. In the third method, the originating processor adds the destination processor preferably in the form of the user's name; the gateway switch adds the destination of the interface switch 304; and the interface switch 304 adds the identification of the receiver 119. In the fourth method, the originating processor adds the destination processor preferably in the form of the user's name only; the gateway switch 14 adds an address of the interface switch 304 and the identification number of the receiver 119; and the interface switch takes no action other than verification that the identification number of the receiver 119 added by the gateway switch 14 is valid. In the fifth method, the operator of the originating processor adds the destination processor, points to an icon displayed on a CRT associated with the originating processor and the originating processor adds the address of the interface switch 304; the gateway switch 14 adds the identification number of the receiver 119 and the interface switch 304 takes no action other than verification. In the sixth method, the operator of the originating processor adds the destination processor, the user of the originating processor points to an icon displayed by a CRT associated with the originating processor which causes the addition of the address of the interface switch 304; the gateway switch takes no action and the interface switch 304 adds the identification of the receiver 119. In the seventh method, the operator of the originating processor adds the destination processor, the user points to an icon displayed on a CRT associated with the originating processor causing the addition of the address of the interface switch 304 and the receiver identification number by comparing an identification of the destination processor, such as user name of the destination processor, to an identification of destination processors with identification numbers or RF receivers 119 which transfer information to the destination processor; the gateway switch 14 takes no action; and the interface switch 304 takes no action.

FIG. 12 illustrates a block diagram of an interface switch 304 in accordance with the present invention. The interface switch 304 has a main CPU 400 to which is connected a floppy drive 402 and a hard drive 404 for providing memory storage for use by the CPU in executing the various functions of the interface switch as

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described above. The program on pages 10-12 of the Appendix implements the function of the interface switch 304 in a 3B2 computer which interfaces with the Telefind Corporation data transmission network described in the above-referenced patents and the AT&T Corporation electronic mail system. A diagnostic and maintenance port 406 is connected to the CPU in accordance with standard practice. A main bus 408 is coupled to a plurality of serial ports 410 which are connected in series with a multispeed modem 412 which is connected to one of the additional processors 312 as discussed above with reference to FIG. 9, to at least one gateway switch with mailboxes 14 in at least one electronic mail system and to a plurality of network ports which are connected to a plurality of X.25 modems 414 which are connected in series with a network port 416 which is connected to hub switch 116 of FIG. 9. A module bay controller 418 controls the bus 408 in accordance with

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standard practice. Alternatively, if the interface switch is not connected to a gateway switch with mailboxes 14, the interface switch functions only as a general purpose collector switch for the additional processors 312.

While the invention has been described in terms of its preferred embodiments, it should be understood that numerous modifications may be made thereto without departing from the spirit and scope as defined in the appended claims. For example, while the invention has been described in terms of utilizing a preferred RF information transmission network, it should be understood that the invention is equally applicable to other forms of RF transmission systems for broadcasting information originating from an originating processor within an electronic mail system or from an additional processor outside of any electronic mail system to a destination processor connected to an electronic mail system. It is intended that all such modifications fall within the scope of the appended claims.

```
#define ATT_EMAIL_FILE      "TFMOBOX.TMP"
#define DELIMITER          "End of Telefind Network Message\r\n"
#include <string.h>
#include <time.h>
#include <stdio.h>
#include <dos.h>
#include "safari.h"

void main(void)
{
    FILE *infile,*outfile;
    char buffer[81],chr,timestr[61],datestr[9];
    char msg_num[4];
    int msg_num_opt = 0;
    char *ptr;
    int x,day,month,line=1,attmail=0;
    time_t t;

    if ((infile = fopen(ATT_EMAIL_FILE,"rt")) == NULL)
    {
        printf("%s does not exist\n",ATT_EMAIL_FILE);
        exit(0);
    }
    if ((outfile = fopen("tfmobox.SSS","wt")) == NULL)
    {
        printf("Can't open TFMBOX.SSS\n");
        exit(0);
    }

    for(;;)
    {
        /*      get characters from .tmp file      */
        x = 0;
        do
        {
            chr = fgetc(infile);
            if (feof(infile))
            {
                fclose(infile);
                fclose(outfile);
                exit(0);
            }
            buffer[x++] = chr;
        } while (chr != '\r');
    }
}
```

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)
/*      until end of line      */
while (chr != '\n' && x != 80);

buffer[x] = '\0';      /*      terminate it      */

if (line == 1)
{
    ptr = strchr(buffer,');
    if (ptr-buffer == 2)      /*      was 3rd character      */
    {
        sscanf(buffer,"%[^\"]",msg_num);
        msg_num_opt = 1;
        ptr++;
    }
    else
        ptr = buffer;

    if (*ptr == ':' && *(ptr+1) == '0')
        attmail = 1;
}

if (attmail)
{
    switch(line)
    {
    case 1:
        /*      datestr = mm/dd, timestr = hh:mm      */
        sscanf(datestr,"%d/%d",&month,&day);      /*
        /*      get year from pc      */

        t = time(NULL);
        fprintf(outfile,"Date: %s",ctime(&t));
        break;

    case 2:
        fprintf(outfile,"From: %s",buffer);
        break;

    case 3:
        fprintf(outfile,"Subject: %s",buffer);
        fprintf(outfile,"To: <Name here>\n");
        if (msg_num_opt)
            fprintf(outfile,"Message #%s\n",msg_num);
        break;

    default:
        fprintf(outfile,"%s",buffer);
        break;
    }
}
else
{
    if (line == 1)
    {
        t = time(NULL);
        fprintf(outfile,"Date: %s",ctime(&t));
        fprintf(outfile,"From: tfmobox\n");
        fprintf(outfile,"Subject: Telefind Network Message\n");
        fprintf(outfile,"To: <Name here>\n");
        if (msg_num_opt)
        {
            fprintf(outfile,"Message #%s\n",msg_num);
            fprintf(outfile,"%s",buffer+3);
        }
    }
}

```

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    }
    else
        fprintf(outfile,"%s",buffer);
}
else
    fprintf(outfile,"%s",buffer);
}

if (strcmp(buffer,DELIMITER) == 0)
{
    msg_num_opt = line = attmail = 0;
}

line ++;
}

Author:          MICHAEL P. PONSCHKE, SR.
                  03/13/91

Program:         SAFARI3.C
Purpose:         TO EXTRACT MESSAGES FROM A TELEFIND PAGER
                  VIA IN RS-232 PORT ON A PC

Compiler:        TURBO C++ 1.0
Memory Model:    SMALL
*/

#include <dos.h>
#include <stdio.h>
#include <conio.h>
#include <string.h>
#include <stdlib.h>
#include "safari.h"

/*          CONSTANTS          */

#define DTR_HI          0x01
#define DTR_LO          0xfe
#define RTS_HI          0x02
#define RTS_LO          0xfd
#define DSR_HI          0x20
#define RING_IN         0x40
#define CD_HI           0x80
#define FIVE_TICK       5
#define FIVE_SEC        96
#define TWELVE_SEC      220
#define LOG_FILE         "LOG"
#define INTRO_STRING     "Please standby, retrieving messages ..."

/*          FUNCTION PROTOTYPES          */

int beep(void);
void busyoff(void);
void busyon(void);
void disoff(void);
void dison(void);
int link(void);
void print_message(void);
int rxdata(void);
int strobe(void);
int strobe_data(void);
unsigned ticks(void);
int timeout(unsigned start, int delay);

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/* VARIABLE DECLARATIONS */

char pager_buffer[511];
int com_base, control_reg, status_reg, log_flag;
FILE *log_file;

void main(int num_arg, char **args)
{
    unsigned start;
    int restart, x;

    com_base = 0x3f8; /* use com 1 unless command line denotes otherwise */

    /* get command line arguments */
    all command line arguments begin with a single '-' and
    must be separated by a single space between each other
    and the program name

-1 Use COM port 1
-2 Use COM port 2
-F Log all activity to a file named LOG */

    if (num_arg > 1)
    {
        for (x=1; x<num_arg; x++)
        {
            if (strcmp(args[x], "-1") == 0)
                com_base = 0x3f8;
            if (strcmp(args[x], "-2") == 0)
                com_base = 0x2f8;
            if (strcmp(args[x], "-F") == 0)
                log_flag = 1;
        }
    }

    if (log_flag)
        if ((log_file = fopen(LOG_FILE, "at")) == NULL)
            printf("Unable to open LOG\n");

    control_reg = com_base + 4;
    status_reg = com_base + 6;

    clrscr();

    if (link() == 0) /* is pager attached ? */
    {
        printf("Please attach Message Receiver \n");
        exit(0);
    }

    busyon(); /* start busy at logic high */

    if (log_flag)
        fprintf(log_file, "Initiating process \n");
    printf("%s\n", INTRO_STRING);
    dison(); /* push display button */
    sleep(2);
    do
    {
        start = ticks();
        restart = 0;
        do
        {

```

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    if (beep())
    {
        print_message();
        restart = 1;
        start -= TWELVE_SEC;
        break;
    }
    /* hold display button for 12 seconds */
    while(! timeout(start,TWELVE_SEC));
}
while(restart);

disoff(); /* release the display button */
if (log_flag)
{
    fprintf(log_file,"Process Complete \n");
    fclose(log_file);
}

/*
    pager beep */
beep(void)

    accesses the RI line via the Status Register
    which is activated when the pager beeps */

    unsigned start;

    start = ticks();
    while ( ! timeout(start,FIVE_TICK))
    {
        if ((inportb(status_reg) & RING_IN) == 0 )
            return(1);
    }
    return(0);

    busyon & busyoff toggle the DTR line via the
    Control Register to strobe in data from the pager */

d busyoff(void)

    outportb(control_reg,inportb(control_reg) | DTR_HI);

d busyon(void)

    outportb(control_reg,inportb(control_reg) & DTR_LO);

    dison & disoff toggle the RTS line via the Control Register
    to simulate the pressing of the display button on the pager */

d dison(void)

    outportb(control_reg,inportb(control_reg) | RTS_HI);

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d disoff(void)

    outportb(control_reg,inportb(control_reg) & RTS_LO);

link(void)

    accesses the CD line via the Status Register
    which is logic high when pager is connected    */

    if ((inportb(status_reg) & CD_Hi) == 0)
        return(0);
    return(1);

d print_message(void)

    FILE *file;
    unsigned start;
    int x,y=0,z=0,chr,bit;

busyoff();    /*    ready to accept pager data    */
/*    read until end code received    */
while (chr != 3)
{
    chr = 0;
    start = ticks();

    /*    wait for start bit    */

    do
    {
        bit = strobe();
        if (bit == 0)
            break;
    }
    while (!timeout(start,FIVE_SEC));

    if (bit)
    {
        if (log_flag)
            fprintf(log_file,"Transmission Error, recheck connection\n");
        disoff();
        exit(0);
    }

    /*    strobe out 8 bit data    */

    for (x=1; x<9; x++)
    {
        chr <<= 1;
        chr += bit = strobe_data();
    }

    /*    clear out stop bits    */
    for (x=1;x<3;x++)
    {
        strobe_data();
    }

    /*    extract start and end codes from message

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    pager signon      02, 1B, 0D, 33
    pager signoff     03                                     */

    if ((y > 3) && (chr != 3))
    {
        /* pager characters 96 and 97 are converted to
           0xFA and 0xFB to display on pager */

        if (chr == 0xfa) /* convert to CR */
            chr = '\n';
        if (chr == 0xfb) /* convert to TAB */
            chr = 0x09;

        pager_buffer[z] = chr;
        z++;
    }
    - y++;
}

pager_buffer[z] = '\0'; /* null terminate */

busyon(); /* finished receiving data */

if (log_flag)
    fprintf(log_file, "%s\n", pager_buffer);

if ((file = fopen(ATT_EMAIL_FILE, "at")) == NULL)
    fprintf(log_file, "Unable to open TFN080X.TMP\n");
else
{
    fprintf(file, "%s\n", pager_buffer);
    fprintf(file, "%s", DELIMITER);
    fclose(file);
}

{
    start = ticks();
    while(!timeout(start, FIVE_SEC))
    {
        /* wait for erase beep */
        if (beep()) break;
    }
    sleep(1); /* wait one more second */
}

int rxdata(void)
{
    /* accesses the DSR line via the Status Register
       which returns the bits value */

    if (inportb(status_reg) & DSR_HI)
        return(0);
    return(1);
}

int strobe(void)
{
    int bit;

    busyon();
    delay(1);
    busyoff();
}

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    delay(4);
    bit = rxdata();
    return(bit);
}

int strobe_data(void)
{
    int bit;

    busyon();
    delay(2);
    bit = rxdata();
    busyoff();
    delay(1);
    return(bit);
}

unsigned ticks(void)
{
    /* returns timer ticks (approx. 18.2/sec)
       using only lower registers */

    union REGS in,out;

    in.x.ax = 0x0;
    int86(0x1a,&in,&out);
    return(out.x.dx);
}

/* timeout(unsigned start, int delay)
   *
   * used for timing events of up to approx. 1 hour.
   * used in conjunction w/ticks() */

unsigned current;

current = ticks();
if (start <= current && (start + delay) < current)
    return(1);
if (start > current && (start - 65535 + delay) < current)
    return(1);
return(0);

/* mark the end of the command line you built, so you can add ending
   delimiter */
sys_command[i] = NULL;
/* add the ending quote for the users message so shell wont
   interpret special characters */
strcat(sys_command, "\\");
/* execute command you built */
system(sys_command);

printf("sending message: %s\n", sys_command);
}
else {
    if(strlen(msg) == 0 ) {
        return(0);
    }
    /* print error for invalid message length */
    printf("telemail error: invalid message length: %s\n", msg);
    return(0);
}

return(i);
}

```

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.....
*
* function: getline(hold-buffer, input-file-pointer)
* arguments: pointer to buffer where line read will be heald,
*            file pointer to input file
* description: reads 1 line of text from the input line and stores the
*            line read into the buffer passed.
* returns: -1 if EOF or number of characters read in
*
...../
getline(buff, fp)
char *buff;
FILE *fp;
{
    int ch, cnt;

    /* keep on reading characetr from file so long as end of file not
       reached or char is the end of line */
    for(cnt = 0; ((ch = fgetc(fp)) != EOF) && ch != '\n'; cnt++) {
        /* MOD BY OT 11/29/90 convert tab to space */
        /* convert tabs to single space */
        if(ch == 9) {
            ch = ' ';
        }
        /* MOD BY OT 11/29/90 dont allow control char */
        /* only load in ascii characters */
        if(isprint(ch) != 0) {
            buff[cnt] = ch;
        }
        else {
            /* turn control characters to spaces */
            buff[cnt] = ' ';
        }
    }
    /* mark the end of the buffer you built */
    buff[cnt] = '\0';
}

.....
*
* function: send_mesg(message-pointer)
* arguments: pointer to text message(capcode,text) to be sent
* description: takes passed message text makes sure the first 8 positions
*            are numeric(capcode). it builds and executes the network
*            send command(netsend.sh) to sedn the message passed.
* returns: 0 if not sent otherwise the number of characters sent out
*
...../
int send_mesg(msg)
char *mesg;
{
    char sys_command[700];
    int i;
    int ch;
    char *mesg_ptr;

    /* left justify the message passed to remove leading spaces */
    strljust(mesg, 512);
    /* trim off trailing blank spaces from the message */
    strtrim(mesg);

    /* make sure you have a capcode at least */
    if(strlen(mesg) > 8) {

        /* start to build the command to be executed to send message retrieved
           from the mail box */
        strcpy(sys_command, "netsend.sh ");

        /* loop while still more characters in the message */
        for(mesg_ptr = mesg, i = 11; *mesg_ptr != NULL; i++, mesg_ptr++) {

            /* make sure the first 8 positions of the message are numeric */
            if((i < 19) && (*mesg_ptr < '0' || *mesg_ptr > '9')) {

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                                47                                48
                                printf("telemail error: invalid capcode: %s\n", mesg);
                                return 0;
                                }

                                /* is the user didnt seperate capcode & message then insert a
                                space into the command */
                                if(i == 19 && *mesg_ptr != ' ') {
                                    sys_command[19] = ' ';
                                    i = 20;
                                }

                                /* enclose the users message with ' so shell wont interpret
                                special characters */
                                if(i == 20) {
                                    sys_command[20] = '\'';
                                    i = 21;
                                }

                                /* put the character from the message onto to the
                                command to be executed */
                                sys_command[i] = *mesg_ptr;
                                }

                                /* since your just starting clear the message area */
                                memset(mesg, NULL, MAXMSGLEN);

                                /* keep on geting lines from the file until you reach end of file */
                                while(getline(buff, fp) != -1) {

                                    /* every mail message start with the word "From " */
                                    if(strncmp(buff, "From ", 5) == 0) {
                                        /* set flag telling you are currently going thru mail header
                                        so you dont add it to the message */
                                        in_header = 1;
                                        /* call routine to the last message if any exists */
                                        send_mesg(mesg);
                                        continue;
                                    }

                                    /* a mail header end with the following string */
                                    if(strncmp(buff, "Content-Length:", 15) == 0) {
                                        /* turn off flag so you know you are no longer in mail
                                        message header */
                                        in_header = 0;
                                        /* clear the old message since this is a new one */
                                        memset(mesg, NULL, MAXMSGLEN);
                                        continue;
                                    }

                                    /* if the line you are now reading in not part of the mail header
                                    add it to the message */
                                    if(in_header == 0) {
                                        strljust(buff, 512);
                                        strtrim(buff);
                                        /* make sure you dont add more than the message length */
                                        if( (strlen(buff) + strlen(mesg)) < MAXMSGLEN) {
                                            strcat(mesg, " ");
                                            strcat(mesg, buff);
                                        }
                                    }
                                }

                                } /* end of read line while */

                                /* send the last message in the file */
                                send_mesg(mesg);

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We claim:

1. A system for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:
 - at least one gateway switch in the electronic mail system, one of the at least one gateway switch receiving the originated information and storing the originated information prior to transmission of the originated information to the at least one of the plurality of destination processors;
 - a RF information transmission network for transmitting the originated information to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors;
 - at least one interface switch, one of the at least one interface switch connecting at least one of the at least one gateway switch to the RF information transmission network and transmitting the originated information received from the gateway switch to the RF information transmission network; and wherein
 - the originated information is transmitted to the one interface switch by the one gateway switch in response to an address of the one interface switch added to the originated information at the one of the plurality of originating processors or by the electronic mail system and the originated information is transmitted from the one interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information added at the originating processor, or by either the electronic mail system or the one interface switch; and
 - the electronic mail system transmits other originated information from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network.
2. A system in accordance with claim 1 wherein:
 - the one interface switch removes from the originated information information added by the electronic mail system and adds information, used by the RF information transmission network during transmission of the originated information through the RF information transmission network to the at least one RF receiver in the RF information transmission network, to the originated information.
3. A system in accordance with claim 1 wherein:
 - the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and
 - the one interface switch stores the originated information, assembles the originated information with additional originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF information transmission network.
4. A system in accordance with claim 3 wherein the RF information transmission network comprises:
 - an RF information transmission network switch, the
- ceiving the packet from the one interface switch disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information network; and wherein
- the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.
5. A system in accordance with claim 2 wherein:
 - the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and
 - the one interface switch stores the originated information, assembles the originated information with additional originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF information transmission network.
6. A system in accordance with claim 5 wherein the RF information transmission network comprises:
 - an RF information transmission network switch, the
- RF information transmission network switch receiving the packet from the one interface switch disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information network; and wherein
- the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.
7. A system in accordance with claim 2 wherein:
 - the wireline transmitting the other originated information between the one of the plurality of originating processors and the at least one of the plurality of destination processors is one of either a public or

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private switch telephone network with the at least one destination processor being addressed during transmission of the other originated information to the at least one destination processor when using the public or private switch telephone network with a different address than the address used during transmission of the originated information to the at least one of the plurality of destination processors by the RF information transmission network.

8. A system in accordance with claim 1 wherein: the address of the one interface switch is added to the originated information by the one gateway switch.
9. A system in accordance with claim 1 wherein: the address of the one interface switch is added by the one originating processor.
10. A system in accordance with claim 1 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the one originating processor.
11. A system in accordance with claim 1 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the one gateway switch.
12. A system in accordance with claim 1 wherein: the address of the at least one of the plurality of destination processors is an identification number of at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the one interface switch.
13. A system in accordance with claim 10 wherein: the identification number is added to the originated information by inputting the identification number to the one originating processor.
14. A system in accordance with claim 10 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.
15. A system in accordance with claim 11 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.
16. A system in accordance with claim 12 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the

plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.

17. A system in accordance with claim 1 wherein: the address of the one interface switch and the address of the at least one of the plurality of destination processors to receive the originated information is added by the one gateway switch.

18. A method for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:

transmitting the originated information originating from the one of the plurality of originating processors to a gateway switch within the electronic mail system;

transmitting the originated information from the gateway switch to an interface switch;

transmitting the originated information received from the gateway switch from the interface switch to a RF information transmission network;

transmitting the originated information by using the RF information transmission network to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors; and

transmitting other originated information with the electronic mail system from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network; and wherein the originated information is transmitted to the interface switch by the gateway switch in response to an address of the interface switch which has been added to the originated information at the one of the plurality of originating processors or by the electronic mail system and the originated information is transmitted from the interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information which has been added at the originating processor or by either the electronic mail system or the interface switch.

19. A method in accordance with claim 18 wherein: the interface switch removes from the originated information information added by the electronic mail system and adds information, used by the RF information transmission network during transmission of the originated information to the originated information to the at least one RF receiver in the RF information transmission network, to the originated information.

20. A method in accordance with claim 18 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and

the interface switch stores the originated information, assembles the originated information with additional originated information received from a plurality of originating processors into a packet and transmits the packet to the RF information transmission network.

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21. A method in accordance with claim 20 wherein: an RF information transmission network switch receives the packet from the interface switch and disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information transmission network; and
 5 the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds
 10 any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.
 22. A method in accordance with claim 19 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and
 30 the interface switch stores the originated information, assembles the originated information with additional originated information received from a plurality of originating processors into a packet and transmits the packet to the RF information transmission network.
 23. A method in accordance with claim 22 wherein: an RF information transmission network switch receives the packet from the interface switch and disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information transmission network; and
 40 the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds
 55 any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.
 24. A method in accordance with claim 19 wherein: the transmission of the other originated information between the one of the plurality of originating

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- processors and the at least one of the plurality of destination processors by the wireline is through either a public or private switch telephone network with the at least one of the plurality of destination processors being addressed during transmission of the other originated information to the at least one of the plurality of destination processors when using the public or private switch telephone network with a different address than the address used during transmission of the originated information to the at least one of the plurality of destination processors by the RF information transmission network.
 25. A method in accordance with claim 18 wherein: the address of the interface switch is added to the originated information by the gateway switch.
 26. A method in accordance with claim 18 wherein: the address of the interface switch is added by the one originating processor.
 27. A method in accordance with claim 18 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the one originating processor.
 28. A method in accordance with claim 18 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the gateway switch.
 29. A method in accordance with claim 18 wherein: the address of the at least one of the plurality of destination processors is an identification number of at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the interface switch.
 30. A method in accordance with claim 27 wherein: the identification number is added to the originated information by inputting the identification number to the one originating processor.
 31. A method in accordance with claim 27 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.
 32. A method in accordance with claim 28 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.
 33. A method in accordance with claim 29 wherein:

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the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.

34. A method in accordance with claim 18 wherein: the address of the interface switch and the address of the at least one of the plurality of destination processors to receive the originated information is added by a gateway switch.

35. A system for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:

a RF information transmission network for transmitting the originated information to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors;

at least one interface switch, one of the at least one interface switch connecting the electronic mail system to the RF information transmission network and transmitting the originated information received from the electronic mail system to the RF information transmission network; and wherein the originated information is transmitted to the one interface switch by the electronic mail system in response to an address of the one interface switch added to the originated information at the one of the plurality of originating processors or by the electronic mail system and the originated information is transmitted from the one interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information added at the originating processor, or by either the electronic mail system or the one interface switch; and

the electronic mail system transmits other originated information from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network.

36. A system in accordance with claim 35 wherein: the one interface switch removes from the originated information information added by the electronic mail system and adds information, used by the RF information transmission network during transmission of the originated information through the RF information transmission network to the at least one RF receiver in the RF information transmission network, to the originated information.

37. A system in accordance with claim 35 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and

the one interface switch stores the originated information, assembles the originated information with other originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF information

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transmission network.

38. A system in accordance with claim 37 wherein the RF information transmission network comprises:

a RF information transmission network switch, the RF information transmission network switch receiving the packet from the one interface switch disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information network; and wherein the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.

39. A system in accordance with claim 36 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and

the one interface switch stores the originated information, assembles the originated information with other originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF information transmission network.

40. A system in accordance with claim 39 wherein the RF information transmission network comprises:

RF information transmission network switch, the RF information transmission network switch receiving the packet from the one interface switch disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information network; and wherein

the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.

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41. A system in accordance with claim 36 wherein: the wireline transmitting the other originated information between the one of the plurality of originating processors and the at least one of the plurality of destination processors is one of either a public or private switch telephone network with the at least one of the plurality of destination processors being addressed during transmission of the other originated information to the at least one of the plurality of destination processors when using the public or private switch telephone network with a different address than the address used during transmission of the originated information to the at least one of the plurality of destination processors by the RF information transmission network.
42. A system in accordance with claim 35 wherein: the address of the one interface switch is added to the originated information by the one gateway switch.
43. A system in accordance with claim 35 wherein: the address of the one interface switch is added by the one originating processor.
44. A system in accordance with claim 35 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the one originating processor.
45. A system in accordance with claim 35 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the one gateway switch.
46. A system in accordance with claim 35 wherein: the address of the at least one of the plurality of destination processors is an identification number of at least one RF receiver receiving the originated information and transferring the originated information to the at least one of the plurality of destination processors and is added to the originated information by the one interface switch.
47. A system in accordance with claim 44 wherein: the identification number is added to the originated information by inputting the identification number to the one originating processor.
48. A system in accordance with claim 44 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.
49. A system in accordance with claim 45 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of

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- destination processors to the originated information as the identification number.
50. A system in accordance with claim 46 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.
51. A system in accordance with claim 35 wherein: the address of the one interface switch and the address of the at least one of the plurality of destination processors to receive the originated information is added by a gateway switch.
52. A method for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:
- transmitting the originated information originating from the one of the plurality of originating processors from the electronic mail system to an interface switch;
 - transmitting the originated information received from the electronic mail system from the interface switch to a RF information transmission network;
 - transmitting the originated information by using the RF information transmission network to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors; and
 - transmitting other originated information with the electronic mail system from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network; and wherein
- the originated information is transmitted to the one interface switch by the electronic mail system in response to an address of the interface switch added to the originated information at the one of the plurality of originating processors or by the electronic mail system and the originated information is transmitted from the interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information added at the originating processor or by either the electronic mail system or the interface switch.
53. A method in accordance with claim 52 wherein: the interface switch removes from the originated information information added by the electronic mail system and adds information, used by the RF information transmission network during transmission of the originated information through the RF information transmission network to the originated information to the at least one RF receiver in the RF information transmission network, to the originated information.
54. A method in accordance with claim 52 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and

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the interface switch stores the originated information, assembles the originated information with other originated information received from a plurality of originating processors into a packet and transmits the packet to the RF information transmission network.

55. A method in accordance with claim 54 wherein: RF information transmission network switch receives the packet from the interface switch and disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information transmission network; and

the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.

56. A method in accordance with claim 53 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver in the RF information transmission network; and

the interface switch stores the originated information, assembles the originated information with other originated information received from a plurality of originating processors into a packet and transmits the packet to the RF information transmission network.

57. A method in accordance with claim 56 wherein: a RF information transmission network switch receives the packet from the interface switch and disassembles the packet into disassembled information including the originated information and the identification number of the at least one RF receiver in the RF information transmission network; and

the RF information transmission network transmits the originated information and the identification number from the RF information transmission network switch to another RF information transmission network switch in the RF information transmission network storing a file containing the identification number and any destination of the at least one RF receiver in the RF information transmission network to which the originated information and identification number is to be transmitted by the RF information transmission network and adds any destination of the at least one RF receiver stored in the file containing the identification number to the originated information and the RF information transmission network in response to any added destination transmits the originated

information and identification number to any destination of the at least one RF receiver for RF broadcast to the at least one RF receiver.

58. A method in accordance with claim 53 wherein: the transmission of the other originated information between the one of the plurality of originating processors and the at least one of the plurality of destination processors by the wireline is through either a public or private switch telephone network with the at least one of the plurality of destination processors being addressed during transmission of the other originated information to the at least one of the plurality of destination processors when using the public or private switch telephone network with a different address than the address used during transmission of the other information to the at least one of the plurality of destination processors by the RF information transmission network.

59. A method in accordance with claim 52 wherein: the address of the interface switch is added to the originated information by a gateway switch.

60. A method in accordance with claim 52 wherein: the address of the interface switch is added by the one originating processor.

61. A method in accordance with claim 52 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the information to the at least one of the plurality of destination processors and is added to the originated information by the one originating processor.

62. A method in accordance with claim 52 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the information to the at least one of the plurality of destination processors and is added to the originated information by the gateway switch.

63. A method in accordance with claim 52 wherein: the address of the at least one of the plurality of destination processors is an identification number of the at least one RF receiver receiving the originated information and transferring the information to the at least one of the plurality of destination processors and is added to the originated information by the interface switch.

64. A method in accordance with claim 63 wherein: the identification number is added to the originated information by inputting the identification number to the one originating processor.

65. A method in accordance with claim 63 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.

66. A method in accordance with claim 54 wherein: the identification number is added to the originated information by matching an identification of the at least one of the plurality of destination processors with a stored identification of the at least one of the

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plurality of destination processors and adding an identification number stored with the matched identification of the at least one of the plurality of destination processors to the originated information as the identification number.

67. A method in accordance with claim 52 wherein: the address of the interface switch and the address of the at least one of the plurality of destination processors to receive the originated information is added by a gateway switch.

68. A method in accordance with claim 52 wherein: the at least one RF receiver transfers the originated information from storage to the at least one of the plurality of destination processors in the electric mail system at a time subsequent to reception of the originated information by the at least one receiver.

69. A method in accordance with claim 68 wherein: the at least one RF receiver is portable.

70. A method in accordance with claim 68 wherein: the at least one RF receiver and the at least one of the plurality of destination processors in the electronic mail system are portable.

71. A method in accordance with claim 68 wherein: the transfer of the originated information occurs after the at least one RF receiver is connected to the at least one of the plurality of destination processors in the electronic mail system.

72. A method in accordance with claim 69 wherein: the transfer of the originated information occurs after the at least one RF receiver is connected to the at least one of the plurality of destination processors in the electronic mail system.

73. A method in accordance with claim 70 wherein: the transfer of the originated information occurs after the at least one RF receiver is connected to the at least one of the plurality of destination processors in the electronic mail system.

74. A method in accordance with claim 52 wherein: the transfer occurs under control of a program stored by the at least one of the plurality of destination processors of the electronic mail system and makes the originated information accessible to application programs stored within the at least one of the plurality of destination processors of the electronic mail system.

75. A method in accordance with claim 71 wherein: the transfer occurs under control of a program stored by the at least one of the plurality of destination processors of the electronic mail system and makes the originated information accessible to application programs stored within the at least one of the plurality of destination processors of the electronic mail system.

76. A method in accordance with claim 52 wherein: the transmission of the originated information between the one of the plurality of originating processors and the interface switch is through a host computer, a telephone network and a gateway switch.

77. A method in accordance with claim 52 wherein: the transmission of the originated information between the one of the plurality of originating processors and the interface switch is through a private automatic branch exchange, a telephone network and a gateway switch.

78. A method in accordance with claim 52 wherein: the transmission of the originated information between the one of the plurality of originating pro-

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cessors and the interface switch is through a local area network, a telephone network and a gateway switch.

79. A method in accordance with claim 52 wherein: the transmission of the originated information between the one of the plurality of originating processors and the interface switch is through a modem, a telephone network and a gateway switch.

80. A system in accordance with claim 35 wherein: the electronic mail system comprises a private automatic branch exchange.

81. A system in accordance with claim 35 wherein: the electronic mail system comprises a local area network.

82. A system in accordance with claim 35 wherein: the electronic mail system comprises at least one gateway switch.

83. A system in accordance with claim 82 wherein: the electronic mail system further comprises a telephone network.

84. A system in accordance with claim 83 wherein: the telephone network is a public switch telephone network.

85. A system in accordance with claim 35 wherein: the electronic mail system comprises a host central processing unit.

86. A system for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:

- at least one gateway switch in the electronic mail system, one of the at least one gateway switch receiving the originated information and storing the originated information prior to transmission of the originated information to the at least one of the plurality of destination processors;
- a RF information transmission network for transmitting the originated information to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors;
- at least one interface switch, one of the at least one interface switch connecting at least one of the at least one gateway switch to the RF information transmission network and transmitting the originated information received from the gateway switch to the RF information transmission network; and wherein

the originated information is transmitted to the one interface switch by the one gateway switch in response to an address of the one interface switch added to the originated information and the originated information is transmitted from the one interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information; and

the electronic mail system transmits other originated information from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network.

87. A method for transmitting originated information from one of a plurality of originating processors in an

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electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:

transmitting the originated information originating from the one of the plurality of originating processors to a gateway switch within the electronic mail system;

transmitting the originated information from the gateway switch to an interface switch;

transmitting the originated information received from the gateway switch from the interface switch to a RF information transmission network;

transmitting the originated information by using the RF information transmission network to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors;

transmitting other originated information with the electronic mail system from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network; and wherein

the originated information is transmitted to the interface switch by the gateway switch in response to an address of the interface switch which has been added to the originated information and the originated information is transmitted from the interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information.

88. A system for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:

a RF information transmission network for transmitting the originated information to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors;

at least one interface switch, one of the at least one interface switch connecting the electronic mail system to the RF information transmission network and transmitting the originated information received from the electronic mail system to the RF information transmission network; and wherein the originated information is transmitted to the one

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interface switch by the electronic mail system in response to an address of the one interface switch added to the originated information and the originated information is transmitted from the one interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information; and

the electronic mail system transmits other originated information from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network.

89. A method for transmitting originated information from one of a plurality of originating processors in an electronic mail system to at least one of a plurality of destination processors in the electronic mail system comprising:

transmitting the originated information originating from the one of the plurality of originating processors from the electronic mail system to an interface switch;

transmitting the originated information received from the electronic mail system from the interface switch to a RF information transmission network;

transmitting the originated information by using the RF information transmission network to at least one RF receiver which transfers the originated information to the at least one of the plurality of destination processors;

transmitting other originated information with the electronic mail system from one of the plurality of originating processors in the electronic mail system to at least one of the plurality of destination processors in the electronic mail system through a wireline without transmission using the RF information transmission network; and wherein

the originated information is transmitted to the one interface switch by the electronic mail system in response to an address of the interface switch added to the originated information and the originated information is transmitted from the interface switch to the RF information transmission network with an address of the at least one of the plurality of destination processors to receive the originated information.

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